

1 **In the Claims**

2

3 Claims 1, 4, 5, 13, 16, 22, 23, 28, 32, 35, 36, 40, 43, 44, 46, 50, 51, 55, 60,
4 61, 65, 69, 70, 73, 76, 77, 91 and 97 are amended.

5 Claims 3, 21, 34, 42, 49, 59, 68, and 75 are cancelled without prejudice.

6 Claims 1, 2, 4-20, 22-33, 35-41, 43-48, 50-58, 60-67, 69-74, 76-97 remain
7 in the application and are listed below:

8

9 1. (Currently Amended) A computing device comprising:
10 one or more processors;
11 memory operably associated with the one or more processors;
12 one or more applications loadable in the memory and executable on the one
13 or more processors; and
14 the one or more processors being configured to:

15 receive context information from externally of the device, the
16 context information pertaining to one or more current device contexts;

17 automatically determine one or more current contexts from the
18 context information using one or more hierarchical traversable tree
19 structures, wherein the tree structures comprise individual nodes individual
20 ones of which being associated with a context, wherein said one or more
21 current contexts are determined by traversing at least one node on at least
22 one of the tree structures, wherein individual nodes comprise an entity
23 identification (EID) that is unique to the node, EIDs serving as a basis by
24 which attributes can be assigned to goods or services associated with an

1 individual node;

2 locally evaluate a collection of policies in connection with the one or
3 more current contexts to provide a resultant set of policies; and

4 enforce the resultant set of policies on the one or more applications.

5

6 2. (Original) The device of claim 1, wherein the device is configured to
7 receive context information from multiple different context providers that provide
8 different types of context information.

9

10 3. (Cancelled).

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12 4. (Currently Amended) The device of claim 3 1, wherein the one or
13 more hierarchical tree structures comprise at least one primary tree structure, at
14 least one secondary tree structure, and at least one link between the primary and
15 secondary tree structures, the link being traversable to determine the one or more
16 current contexts.

17

18 5. (Currently Amended) The device of claim 3 1, wherein the one or
19 more hierarchical tree structures provide a common abstract representation of
20 context.

21

22 6. (Original) The device of claim 1, wherein the device is configured to
23 determine the one or more current contexts dynamically.

1 7. (Original) The device of claim 1, wherein the device is configured to
2 receive policies from different policy sources.

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4 8. (Original) The device of claim 1, wherein the device is configured to
5 receive policies from different policy sources, the policies from the different
6 policy sources being defined in terms of a common abstract representation of
7 context.

8
9 9. (Original) The device of claim 1 embodied as an enterprise device,
10 the collection of policies comprising at least enterprise policies that are defined in
11 terms of a common abstract representation of context.

12
13 10. (Original) The device of claim 1 embodied as a portable device.

14
15 11. (Original) The device of claim 1 embodied as a wireless device.

16
17 12. (Original) The device of claim 1 embodied as a handheld device.

18
19 13. (Currently Amended) A computing device comprising:
20 one or more processors;
21 memory operably associated with the one or more processors;
22 one or more applications loadable in the memory and executable on the one
23 or more processors; and
24 the one or more processors being configured to:

25 receive context information from externally of the device, the

context information pertaining to a current device context and determine a current context using one or more hierarchical traversable tree structures on the device, wherein the tree structures comprise individual nodes each of which being associated with a device context, wherein said current context is determined by traversing at least one node on at least one of the tree structures, and wherein individual nodes comprise an entity identification (EID) that is unique to the node, EIDs serving as a basis by which attributes can be assigned to goods or services associated with an individual node; and

enforce a set of policies on the one or more applications, the set of policies pertaining to a current context that is associated with the context information.

14. (Original) The computing device of claim 13, wherein the one or more processors are configured to determine the current context from the context information.

15. (Original) The computing device of claim 13, wherein the one or more processors are configured to locally evaluate a collection of policies, in connection with the received context information, to provide the set of policies.

16. (Currently Amended) A method of operating a computing device comprising:

receiving context information from externally of a computing device, the context information pertaining to a current device context;

1 automatically determining, with the computing device, a current context
2 using the context information,

3 wherein said act of automatically determining comprises:

4 providing one or more hierarchical traversable tree structures on the
5 device, the tree structures comprising individual nodes each of which being
6 associated with a device context, wherein individual nodes comprise an
7 entity identification (EID) that is unique to the node, EIDs serving as a
8 basis by which attributes can be assigned to goods or services associated
9 with an individual node; and

10 traversing at least one node on at least one of the tree structures to
11 provide the current context;

12 evaluating a collection of policies in connection with the current context to
13 provide a resultant set of policies; and

14 enforcing the resultant set of policies on one or more applications that are
15 executable by the computing device.

17 17. (Original) The method of claim 16, wherein said evaluating
18 comprises locally evaluating the collection of policies using the computing device.

20 18. (Original) The method of claim 16, wherein said evaluating
21 comprises evaluating the collection of policies remote from the computing device.

1 19. (Original) The method of claim 16, wherein said receiving
2 comprises receiving context information from multiple different context providers
3 that provide different types of context information.

4

5 20. (Original) The method of claim 16, wherein said receiving
6 comprises wirelessly receiving the context information.

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8 21. (Cancelled).

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10 22. (Currently Amended) The method of claim 21-16, wherein the one or
11 more hierarchical tree structures comprise at least one primary tree structure, at
12 least one secondary tree structure, and at least one link between the primary and
13 secondary tree structures, the link being traversable to determine the device's
14 current context.

15

16 23. (Currently Amended) The method of claim 21-16, wherein the one or
17 more hierarchical tree structures provide a common abstract representation of
18 context.

19

20 24. (Original) The method of claim 16 further comprising receiving
21 policies from multiple different policy sources.

1 25. (Original) The method of claim 16 further comprising receiving
2 policies from multiple different policy sources, the policies being defined in terms
3 of a common abstract representation of context.

4

5 26. (Original) The method of claim 16, wherein the computing device
6 comprises an enterprise computing device and further comprising receiving
7 policies from an enterprise policy source, the policies being defined in terms of a
8 common abstract representation of context.

9

10 27. (Original) One or more computer-readable media having computer-
11 readable instructions thereon which, when executed by a computer, cause the
12 computer to implement the method of claim 16.

13

14 28. (Currently Amended) A method of operating a computing device
15 comprising:

16 receiving context information from externally of a computing device, the
17 context information pertaining to a current device context; and

18 automatically determining, with the computing device, a current context
19 using the context information;

20 wherein said act of automatically determining comprises:

providing one or more hierarchical traversable tree structures on the device, the tree structures comprising individual nodes each of which being associated with a device context, wherein individual nodes comprise an entity identification (EID) that is unique to the node, EIDs serving as a basis by which attributes can be assigned to goods or services associated with an individual node; and

traversing at least one node on at least one of the tree structures to provide the current context; and

enforcing the resultant set of policies a set of policies, which are the result of a collection of policies in connection with the current device context, on one or more applications that are executable by the computing device, the resultant set of policies pertaining to a context that is associated with the context information that is received.

29. (Original) The method of claim 28 further comprising determining, on the computing device, a context that is associated with the context information.

30. (Original) The method of claim 28 further comprising locally evaluating a collection of policies responsive to receiving the context information, said evaluating providing a resultant set of policies.

1 31. (Original) The method of claim 28 further comprising receiving one
2 or more policies from externally of the computing device, said one or more
3 policies being associated with a context which is, in turn, associated with the
4 context information.

5
6 32. (Currently Amended) A computing device comprising:
7 one or more processors;
8 memory operably associated with the one or more processors;
9 one or more applications loadable in the memory and executable on the one
10 or more processors; and
11 the one or more processors being configured to:

12 receive context information from externally of the device, the
13 context information pertaining to a current device context;

14 automatically determine a current context from the context
15 information using one or more hierarchical traversable tree structures on the
16 device, the tree structures comprising individual nodes each of which being
17 associated with a device context, the device being configured to determine
18 its current context by traversing at least one node on at least one of the tree
19 structures, wherein individual nodes comprise an entity identification (EID)
20 that is unique to the node, EIDs serving as a basis by which attributes can
21 be assigned to goods or services associated with an individual node;

22 locally evaluate a collection of policies in connection with the
23 current context to provide a resultant set of policies;

1 enforce the resultant set of policies on the one or more applications;
2 and

3 responsive to receiving context information that indicates a change
4 of current context:

5 locally re-evaluate the collection of policies to provide a new
6 resultant set of policies; and

7 enforce the new resultant set of policies on the one or more
8 applications.

9

10 33. (Original) The device of claim 32, wherein the device is configured
11 to receive context information from multiple different context providers that
12 provide different types of context information.

13

14 34. (Cancelled).

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16 35. (Currently Amended) The device of claim 34 32, wherein the one or
17 more hierarchical tree structures comprise at least one primary tree structure, at
18 least one secondary tree structure, and at least one link between the primary and
19 secondary tree structures, the link being traversable to determine the device's
20 current context.

21

22 36. (Currently Amended) The device of claim 34 32, wherein the one or
23 more hierarchical tree structures provide a common abstract representation of
24 context.

1 37. (Original) The device of claim 32, wherein the device is configured
2 to determine current context dynamically.

3
4 38. (Original) The device of claim 32, wherein the device is configured
5 to receive policies from different policy sources.

6
7 39. (Original) The device of claim 32, wherein the device is configured
8 to receive policies from different policy sources, all of the policies being defined
9 in terms of a common abstract representation of context.

10
11 40. (Currently Amended) A method of operating a computing device
12 comprising:

13 wirelessly receiving context information from externally of a computing
14 device, the context information pertaining to a current device context;

15 automatically determining, with the computing device, a current context
16 using the context information;

17 wherein said act of automatically determining comprises:

18 providing one or more hierarchical traversable tree structures on the
19 device, the tree structures comprising individual nodes each of which being
20 associated with a device context, wherein individual nodes comprise an
21 entity identification (EID) that is unique to the node, EIDs serving as a
22 basis by which attributes can be assigned to goods or services associated
23 with an individual node; and

24 traversing at least one node on at least one of the tree structures to
25 provide the current context;

1 locally evaluating, with the computing device, a collection of policies in
2 connection with the current context to provide a resultant set of policies;

3 enforcing the resultant set of policies on one or more applications that are
4 executable by the computing device;

5 determining whether the device's current context has changed and if so,
6 automatically determining a new current context using received context
7 information;

8 responsive to determining the new current context, locally re-evaluating,
9 with the computing device, the collection of policies to provide a new resultant set
10 of policies for the new current context; and

11 enforcing the new resultant set of policies on the one or more applications.

12

13 41. (Original) The method of claim 40 wherein said receiving comprises
14 receiving context information from multiple different context providers that
15 provide different types of context information.

16

17 42. (Cancelled).

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19 43. (Currently Amended) The method of claim 42 40, wherein the one or
20 more hierarchical tree structures comprise at least one primary tree structure, at
21 least one secondary tree structure, and at least one link between the primary and
22 secondary tree structures, the link being traversable to determine the device's
23 current context.

1 44. (Original) The method of claim 42 40, wherein the one or more
2 hierarchical tree structures provide a common abstract representation of context.

3

4 45. (Original) One or more computer-readable media having computer-
5 readable instructions thereon which, when executed by a computer, cause the
6 computer to implement the method of claim 40.

7

8 46. (Currently Amended) A computing device comprising:
9 one or more processors;
10 memory operably associated with the one or more processors;
11 one or more applications loadable in the memory and executable on the one
12 or more processors; and

13 the one or more processors being configured to:
14 receive location information pertaining to a current device location;
15 automatically determine a current location from the location
16 information using one or more hierarchical traversable tree structures on the
17 device, the tree structures comprising individual nodes each of which being
18 associated with a device location, the device being configured to determine
19 its current location by traversing at least one node on at least one of the tree
20 structures, wherein individual nodes comprise an entity identification (EID)
21 that is unique to the node, EIDs serving as a basis by which attributes can
22 be assigned to goods or services associated with an individual node;

23 locally evaluate a collection of policies in connection with the
24 current location to provide a resultant set of policies; and

1 enforce the resultant set of policies on the one or more applications.

2

3 47. (Original) The computing device of claim 46, wherein said one or

4 more processors are configured to receive location information from externally of

5 the device.

6

7 48. (Original) The computing device of claim 46, wherein the device is

8 configured to receive location information from multiple different location

9 providers that provide different types of location information.

10

11 49. (Cancelled).

12

13 50. (Currently Amended) The computing device of claim 49 46, wherein

14 the one or more hierarchical tree structures comprise at least one primary tree

15 structure, at least one secondary tree structure, and at least one link between the

16 primary and secondary tree structures, the link being traversable to determine the

17 device's current location.

18

19 51. (Currently Amended) The computing device of claim 49 46, wherein

20 the one or more hierarchical tree structures provide a common abstract

21 representation of location.

22

23 52. (Original) The computing device of claim 46, wherein the device is

24 configured to determine the current location dynamically.

1 53. (Original) The computing device of claim 46, wherein the device is
2 configured to receive policies from different policy sources.

3
4 54. (Original) The computing device of claim 46, wherein the device is
5 configured to receive policies from different policy sources, the policies from the
6 different policy sources being defined in terms of a common abstract
7 representation of location.

8
9 55. (Currently Amended) A method of operating a computing device
10 comprising:

11 receiving location information pertaining to a current device location;
12 automatically determining, with the computing device, a current location
13 using the location information;

14 wherein said act of automatically determining comprises:

15 providing one or more hierarchical traversable tree structures on the
16 device, the tree structures comprising individual nodes each of which being
17 associated with a device location, wherein individual nodes comprise an
18 entity identification (EID) that is unique to the node, EIDs serving as a
19 basis by which attributes can be assigned to goods or services associated
20 with an individual node; and

21 traversing at least one node on at least one of the tree structures to
22 provide the current location;

23 locally evaluating, with the computing device, a collection of policies in
24 connection with the current location to provide a resultant set of policies; and

25 enforcing the resultant set of policies on one or more applications that are

1 executable by the computing device.

2

3 56. (Original) The method of claim 55, wherein said receiving

4 comprises receiving the location information from externally of the device.

5

6 57. (Original) The method of claim 55, wherein said receiving

7 comprises receiving location information from multiple different location

8 providers that provide different types of location information.

9

10 58. (Original) The method of claim 55, wherein said receiving

11 comprises wirelessly receiving location information from multiple different

12 location providers that provide different types of location information.

13

14 59. (Cancelled).

15

16 60. (Currently Amended) The method of claim 59 55, wherein the one or

17 more hierarchical tree structures comprise at least one primary tree structure, at

18 least one secondary tree structure, and at least one link between the primary and

19 secondary tree structures, the link being traversable to determine the device's

20 current location.

21

22 61. (Currently Amended) The method of claim 59 55, wherein the one or

23 more hierarchical tree structures provide a common abstract representation of

24 location.

1 62. (Original) The method of claim 55 further comprising receiving
2 policies from multiple different policy sources.

3

4 63. (Original) The method of claim 55 further comprising receiving
5 policies from multiple different policy sources, the policies being defined in terms
6 of a common abstract representation of location.

7

8 64. (Original) One or more computer-readable media having computer-
9 readable instructions thereon which, when executed by a computer, cause the
10 computer to implement the method of claim 55.

11

12 65. (Currently Amended) A computing device comprising:
13 one or more processors;
14 memory operably associated with the one or more processors;
15 one or more applications loadable in the memory and executable on the one
16 or more processors; and
17 the one or more processors being configured to:

18 receive location information pertaining to a current device location;
19 automatically determine a current location from the location
20 information using one or more hierarchical traversable tree structures on the
21 device, the tree structures comprising individual nodes each of which being
22 associated with a device location, the device being configured to determine
23 its current location by traversing at least one node on at least one of the tree
24 structures, wherein individual nodes comprise an entity identification (EID)
25 that is unique to the node, EIDs serving as a basis by which attributes can

1 be assigned to goods or services associated with an individual node;

2 locally evaluate a collection of policies in connection with the
3 current location to provide a resultant set of policies;

4 enforce the resultant set of policies on the one or more applications;

5 and

6 responsive to receiving location information that indicates a change
7 of current location:

8 locally re-evaluate the collection of policies to provide a new
9 resultant set of policies; and

10 enforce the new resultant set of policies on the one or more
11 applications.

12
13 66. (Original) The computing device of claim 65, wherein the one or
14 more processors are configured to receive location information from externally of
15 the device.

16
17 67. (Original) The computing device of claim 65, wherein the device is
18 configured to receive location information from multiple different location
19 providers that provide different types of location information.

1 68. (Cancelled).

2

3 69. (Currently Amended) The computing device of claim 69 65, wherein

4 the one or more hierarchical tree structures comprise at least one primary tree

5 structure, at least one secondary tree structure, and at least one link between the

6 primary and secondary tree structures, the link being traversable to determine the

7 device's current location.

8

9 70. (Currently Amended) The computing device of claim 69 65, wherein

10 the one or more hierarchical tree structures provide a common abstract

11 representation of context.

12

13 71. (Original) The computing device of claim 65, wherein the device is

14 configured to receive policies from different policies sources.

15

16 72. (Original) The computing device of claim 65, wherein the device is

17 configured to receive policies from different policies sources, all of the policies

18 being defined in terms of a common abstract representation of location.

19

20 73. (Currently Amended) A method of operating a computing device

21 comprising:

22 wirelessly receiving location information from externally of a computing

23 device, the location information pertaining to a current device location;

1 automatically determining, with the computing device, a current location
2 using the location information;

3 wherein said act of automatically determining comprises:

4 providing one or more hierarchical traversable tree structures on the
5 device, the tree structures comprising individual nodes each of which being
6 associated with a device location, wherein individual nodes comprise an
7 entity identification (EID) that is unique to the node, EIDs serving as a
8 basis by which attributes can be assigned to goods or services associated
9 with an individual node; and

10 traversing at least one node on at least one of the tree structures to
11 provide the current location;

12 locally evaluating, with the computing device, a collection of policies in
13 connection with the current location to provide a resultant set of policies;

14 enforcing the resultant set of policies on one or more applications that are
15 executable by the computing device;

16 determining whether the device's current location has changed and if so,
17 automatically determining a new current location using received location
18 information;

19 responsive to determining the new current location, locally re-evaluating,
20 with the computing device, the collection of policies to provide a new resultant set
21 of policies for the new current location; and

22 enforcing the new resultant set of policies on the one or more applications.

1 74. (Original) The method of claim 73, wherein said receiving
2 comprises receiving location information from multiple different location
3 providers that provide different types of location information.

4

5 75. (Cancelled).

6

7 76. (Currently Amended) The method of claim 75 73, wherein the one or
8 more hierarchical tree structures comprise at least one primary tree structure, at
9 least one secondary tree structure, and at least one link between the primary and
10 secondary tree structures, the link being traversable to determine the device's
11 current location.

12

13 77. (Currently Amended) The method of claim 75 73, wherein the one or
14 more hierarchical tree structures provide a common abstract representation of
15 location.

16

17 78. (Original) One or more computer-readable media having computer-
18 readable instructions thereon which, when executed by a computer, cause the
19 computer to implement the method of claim 73.

20

21 79. (Original) A computing device comprising:
22 one or more processors;
23 memory operably associated with the one or more processors;
24 one or more applications loadable in the memory and executable on the one
25 or more processors; and

the one or more processors being configured to:

collect policies from multiple different policy sources to provide a collection of policies, the policies being expressed in terms of context dependencies associated with multiple different device contexts;

receive context information from externally of the device, the context information pertaining to a current device context;

automatically determine a current context from the context information;

locally evaluate the collection of policies in connection with the current context to provide a resultant set of policies; and

enforce the resultant set of policies on the one or more applications.

80. (Original) The device of claim 79, wherein the device is configured

automatically determine when its context has changed;

locally re-evaluate the collection of policies to provide a new resultant set of policies responsive to a context change; and enforce the new resultant set of policies.

81. (Original) The device of claim 79, wherein the context comprises location.

82. (Original) A method of operating a computing device comprising:
collecting policies from multiple different policy sources to provide a
collection of policies, the policies being expressed in terms of context

1 dependencies associated with multiple different device contexts;
2 receiving context information from externally of a computing device, the
3 context information pertaining to a current device context;
4 automatically determining a current context from the context information;
5 locally evaluating the collection of policies in connection with the current
6 context to provide a resultant set of policies; and
7 enforcing the resultant set of policies on the device.

8
9 83. (Original) The method of claim 82 further comprising:
10 automatically determining when a device context has changed;
11 determining a new device context;
12 locally re-evaluating the collection of policies in connection with the new
13 device context to provide a new resultant set of policies; and
14 enforcing the new resultant set of policies on the device.

15
16 84. (Original) One or more computer-readable media having computer-
17 readable instructions thereon which, when executed by a computer, cause the
18 computer to implement the method of claim 82.

19
20 85. (Original) One or more computer-readable media having computer-
21 readable instructions thereon which, when executed by a computer, cause the
22 computer to implement the method of claim 83.

1 86. (Original) A programmable computing device programmed with
2 instructions that implement the method of claim 82.

3
4 87. (Original) A programmable computing device programmed with
5 instructions that implement the method of claim 83.

6
7 88. (Original) A method of providing policies for enforcement on
8 computing devices comprising:

9 providing a representation of location using multiple hierarchical tree
10 structures each of which comprising multiple nodes, each node representing a
11 location that can be either a physical location or a logical location, the tree
12 structures comprising at least one link between them that can serve as a basis for a
13 traversal operation that traverses the multiple tree structures to derive a computing
14 device location, and

15 expressing multiple policies as a function of the representation of location.

16
17 89. (Original) One or more computer-readable media having computer-
18 readable instructions thereon which, when executed by a computer, cause the
19 computer to implement the method of claim 88.

20
21 90. (Original) A method of providing policies for enforcement on
22 computing devices comprising:

23 expressing multiple policies as a function of an abstract representation of
24 location that uses multiple hierarchical tree structures each of which comprising
25 multiple nodes, each node representing a location that can be either a physical

1 location or a logical location, the tree structures comprising at least one link
2 between them that can serve as a basis for a traversal operation that traverses the
3 multiple tree structures to derive a computing device location; and
4 making the multiple policies available to computing devices.

5
6 91. (Currently Amended) A computer architecture comprising:
7 a context service that provides context information or context change
8 events that pertain to the context of a computing device; and

9 wherein said context service determines context using one or more
10 hierarchical traversable tree structures, the tree structures comprising individual
11 nodes each of which being associated with a device context, the context service
12 being configured to determine context by traversing at least one node on at least
13 one of the tree structures, wherein individual nodes comprise an entity
14 identification (EID) that is unique to the node, EIDs serving as a basis by which
15 attributes can be assigned to goods or services associated with an individual node;
16 and

17 a policy engine communicatively linked with the context service and
18 configured to:

19 receive context information or context change events from the
20 context service;

21 evaluate a collection of policies to provide a resultant set of policies
22 responsive to the context information or context change events; and

23 enforce the resultant set of policies on a computing device.

24
25

1 92. (Original) The computer architecture of claim 91, wherein the policy
2 engine is configured to enforce the resultant set of policies by promulgating new
3 settings for one or more applications that are executable by the computing device.

4

5 93. (Original) The computer architecture of claim 91 wherein the policy
6 engine is configured to enforce the resultant set of policies by promulgating new
7 state for one or more applications that are executable by the computing device.

8

9 94. (Original) The computer architecture of claim 91, wherein the policy
10 engine is configured to receive policies from multiple different policy sources.

11

12 95. (Original) A computing device embodying the computer architecture
13 of claim 91.

14

15 96. (Original) An enterprise computing device embodying the computer
16 architecture of claim 91. .

17

18 97. (Currently Amended) A computer system comprising:
19 a context service that provides context information or context change
20 events that pertain to the context of a computing device;

21 wherein said context service determines context using one or more
22 hierarchical traversable tree structures, the tree structures comprising individual
23 nodes each of which being associated with a device context, the context service
24 being configured to determine context by traversing at least one node on at least
25 one of the tree structures, wherein individual nodes comprise an entity

1 identification (EID) that is unique to the node, EIDs serving as a basis by which
2 attributes can be assigned to goods or services associated with an individual node;
3 and

4 a policy engine communicatively linked with the context service, but
5 remote from the computing device, and configured to:

6 receive context information or context change events from the
7 context service;

8 evaluate a collection of policies to provide a resultant set of policies
9 responsive to the context information or context change events; and

10 provide the resultant set of policies to the computing device.

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